

Work Order ID 53635

November 11, 2009 9:00:40 AM

SPLIT Defect 55036
(2)



Page 1

Item ID: D212-725-1-007

Revision ID: B

Item Name: COLLECTIVE BELL CRANK

Start Date: 11/12/09 Start Qty: *22* 21.00

Required Date: 11/20/09 Req'd Qty: 21.00

Reference:

Approvals: Process Plan: *W*

QC:

Date:

Date:

Tooling:

SPC (Y/N):

Date:

Date:

Run Start

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D212-725-1

Rev B

190



Purchasing

Purchasing

Memo

Issue P.O. to Eagle
D212-725-1-007 *R/O 10735*
for NDT testing and QC inspection of parts back to Dart

0.00

0.00

CL 09/11/11

#22

200



Packaging

Packaging

Receive & Inspect for Damage & Mat'l Certs

Memo

Ensure C of C attached

0.00

0.00

09/14/17

(22)

210 QLG inspect dims to Dwg.

204



HAAS I

HAAS CNC vertical machine #1

Memo

Machine Chamfer
per dwrg D212-725

0.00

0.00

S 01/11/20

09/12/29

(22)

Pro ->

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
9/11/20	#210	Proc. Change QC 6 inspect dimensions to Drawing					S 09/11/20

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
9/11/20		Found During inspection all Q4 X22 Parts have Dim .906 ^{+0.00} _{-0.02} measuring .909". Also all Parts	J 09/11/20	Dimple was only 0.012" wide by 0.003" deep at the most. (verified by J.M prior to buffing). Buff out dimple! chanfer per attached e-mail	J 09/12/29	09/12/29	J 09/11/20	S 09/11/20
		have a dimple in the center of the part (0.040" x 0.005" deep) not correct						S 09/11/20

NOTE: Date & initial all entries

Work Order ID 53635

November 11, 2009 9:00:40 AM



Page 2

Item ID: D212-725-1-007

Accept



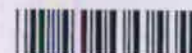
Setup Start



Revision ID: B

Item Name: COLLECTIVE BELL CRANK

Stop



Start Date: 11/12/09 Start Qty: 21.00



Cust Item ID:

Required Date: 11/20/09 Req'd Qty: 21.00



Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

205

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

ant 09/12/29

206

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

② 10/12/29

210

Memo

0.00



Purchasing

Purchasing

OUTSIDE SERVICES-MACH
Issue P/O:
LPI Per ASTM 1417 LEVEL 2
Certificate of conformity is required

1102

u 09-12-29

Work Order ID 53635

November 11, 2009 9:00:41 AM



Page 3

Item ID: D212-725-1-007
Revision ID: B
Item Name: COLLECTIVE BELL CRANK

Accept



Setup Start



Stop



Start Date: 11/12/09 Start Qty: 21.00
Required Date: 11/20/09 Req'd Qty: 21.00



Cust Item ID:
Customer:

Reference:

Approvals: Process Plan:
QC:

Date:
Date:

Tooling:
SPC (Y/N):

Date:
Date:

Run Start
Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

220



Packaging

Packaging

Receive & Inspect for Damage & Mat'l Certs

0.00

Memo

0.00

230



QC

Quality Control

QC6- Inspect dimensions to drawing

0.00

Memo

0.00

⇒ Scales

240



Packaging

Packaging

Identify as per dwg & Stock Location: 367

0.00

Memo

0.00

PC 10/1/14 @

(12)

10-1-5 (2x) SL

Work Order ID 53635

November 11, 2009 9:00:41 AM



Page 4

Item ID: D212-725-1-007
Revision ID: B
Item Name: COLLECTIVE BELL CRANK

Accept



Setup Start



Stop



Start Date: 11/12/09 Start Qty: 21.00
Required Date: 11/20/09 Req'd Qty: 21.00



Cust Item ID:

Customer:

Reference:

Approvals: Process Plan:
QC:

Date:

Tooling:

Date:

Run Start



Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

250

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

1001.05

Subcontract only
C.O.E.

W 10101.05

Picklist Print

November 11, 2009 9:00:39 AM

Page 1

Work Order ID: 53635

Parent Item: D212-725-1-007RevB

Parent Item Name: COLLECTIVE BELL CRANK

Comments:

Start Date: 11/12/09

Required Date: 11/20/09

Start Qty: 21.00

Required Qty: 21.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D212-725-1-007RevB		Manufactured	No				Each	2.0000	21.0000			
COLLECTIVE BELL CRANK												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	2	
48087	2	

53635 (Positive)
EAGLE Reptech
LT-09-005444
4 09-12-11

DART AEROSPACE LTD		Work Order:	
Description: Collective Bellcrank		Part Number:	D212-725-1-007
Inspection Dwg: D212-725-1 Rev: D		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.816	+/-0.010	0.8125	✓			
0.225	+/-0.010	0.2226	✓			all in flange 0.218 min.
0.380	+/-0.010	0.3793	✓			
R0.25		R0.25	✓			
100°		100°	✓			
0.096		0.100	✓			
R0.13	+/-0.030	R0.125	✓			
0.032 x 45°		0.031 x 45°		✓		ACCEPTABLE DEVIATION
0.025 x 45°		0.025 x 45°		✓		ACCEPTABLE DEVIATION
6.462	+/-0.010	6.4645	✓			
R0.63	+/-0.030	could not				could not measure
2.949	+/-0.005	2.948	✓			
2.268		2.268	✓			
Ø0.250	+0.005/-0.001	0.251	✓			
0.740	+/-0.010	0.737	✓			
0.853		0.847	✓			
0.983	+/-0.010	0.981	✓			
2.829		2.8245	✓			
1.098		1.100	✓			
0.808	+/-0.010	0.805	✓			
R0.76		R0.76	✓			
Ø0.906	+0.000/-0.002	0.9089		✓		ACCEPTABLE DEVIATION
Ø1.000	+0.000/-0.002	0.9989	✓			
R0.38		R.375	✓			
R0.47		R.470	✓			
0.207		0.2078	✓			
0.844	+/-0.010	0.8443	✓			
0.430	+0.005/-0.000	0.430	✓			
0.228	+/-0.010	0.2276	✓			
0.594	+0.005/-0.000	0.5976	✓			
1.050	+/-0.010	1.0475	✓			

Measured by:	<i>[Signature]</i>	Audited by:		Prototype Approval:	N/A
Date:	09/03/23	Date:		Date:	N/A

Rev	Date	Change	Revised by	Approved
A	07.01.17	New Issue	KJ/JLM	
B	08.12.02	Dimensions updated per Dwg Rev. D	KJ/DD	<i>[Signature]</i>

P/N 120-013-3A SLEEVE (1)
SUITED TO FIT BEARING
P/N MS27643-3 BEARING (1)
PRESS FIT

—D212-725-1-007
COLLECTIVE BELLCRANK

D212-725-1-901 COLLECTIVE BELLCRANK ASS'Y

0.032 x 45° CHAMFER BOTH SIDE

0.025 x 45° CHAMFER BOTH SIDE

6.462

5.842

5.217

R0.63 (TYP)

2.268

2.846

R0.13 (TYP)

φ0.250

R0.55

0.740

0.983

φ0.906^{+0.000}_{-0.002}

R0.76

R0.38

R0.47

φ0.250

0.808

1.098

2.829

R0.13 (TYP)

THIS SURFACE IS IN LINE WITH THE CENTER OF THE HOLE ABOVE

GRAIN DIRECTION

0.853

3.902

2.949

LT

0.207

0.844

0.430

^{+0.005}
_{-0.005}

D212-725-1-007 COLLECTIVE BELLCRANK

NOTES:

- 1) MATERIAL: ALUMINUM 7075-T7351 (QQ-A-250/12)
- 2) FINISH: ACID ETCH, ALODINE 1200 OR 120 PER MIL-C-5541 AND/OR PRIME & PAINT PER AIRCRAFT MAINTENANCE MANUAL
- 3) LPI PER ASTM 1417 LEVEL 2
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 7) IDENTIFY WITH DART P/N USING FINE POINT PERMANENT INK MARKER

B	07.05.11	UPDATE MATERIAL & GRAIN DIRECTION	
A	06.12.08	NEW ISSUE	
DESIGN DC	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED DS	APPROVED 	DRAWING NO D212-725-1	REV. 1
DATE 07.05.11		TITLE 212S DETAIL PARTS	

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Eagle Copters Maintenance Ltd

823 McTavish Rd, NE
Calgary, Alberta T2E 7G9
Canada

PACKING SLIP

Date Shipped: November 12, 2009

Telephone: (403) 250-7370

Fax: (403) 250-7110

Shipment number: SH#09-004018

Manifest number:

Ship To: Dart Aerospace Ltd.

1270 Aberdeen Street
Hawkesbury, Ontario K6A 1K7
Canada

Ship Via: FED EX

Carrier Terms:

Waybill: 7981 3253 6950

Shipping Instructions: Ship Fedex Econo
Attn: Linda

Customer P.O. Number: PO10735

Phone: 613-632-5200

Item	Part Number	Part Description	Current Location	Qty	UOM	Serial Number	Lot Number
1	D212-725-1-007	BELLCRANK	Shipping Area	21	Each		LT-09-005444

Type of sale: Outright

Sales Order Number: SO09-01732.001

Eagle PO Number

Comments

* End of Report *

>> denotes that the Packing Slip line item has already been printed.

FIELD AVIATION COMPANY inc

1312 AVIATION PARK N.E. CALGARY ALBERTA T2E 7E2

Purchasing Phone (403) 516-8335 Fax (403) 516-8301

Sales Phone (403) 516-8315 Fax (403) 516-8336

PACKING SLIP



Date	Mar 03/09
Packing Slip	3996
Page #	1

SHIP TO

EAGLE COPTERS MAINTENANCE LTD
823 MC TAVISH ROAD NE
CALGARY AB T2E 7G9

SOLD TO

EAGLE COPTERS MAINTENANCE LTD
823 MC TAVISH ROAD NE
CALGARY AB T2E 7G9

Vendor Code	Order Date	Reference Number	Purchase Order No.	Ship Via Collect	Ship Date	Waybill Number
EAGCOP	Feb 09/09	SO29884	08-003185	CUST P-UP	Mar 03/09	

Line#	Qty Ord	Qty Ship	Part Number Description	HS Code	Country of Orig.	Unit Value	Tax Value
01	1	1	HEAT TREAT HEAT TREAT ALUM ALLOY I HEREBY CERTIFY THAT THE PRODUCTS/PROCESSES LISTED CONFORM TO THE REQUIREMENTS AS SPECIFIED IN THE ABOVE PURCHASE/CONTRACT ORDER. *P/N D212-725-1-007,7075 QQ-A-250/12 T651 HEAT TREATED TO T735 1 PER ASM 2770 REV H* CODE:CC-ECML ATTN:JOHN ROSS B/N:W21684			130.00	130
						TOTAL \$CDN\$	130

PACKING SLIP

Comments

I HEREBY CERTIFY THAT THE ITEMS, OR MATERIAL, COVERED BY THIS DOCUMENT HAS BEEN INSPECTED AND TESTED AND CONFORM TO THE APPROVED SPECIFICATION RELATIVE THERETO. THIS IS SUBSTANTIATED EITHER BY MY INSPECTION AND TEST, OR BY SATISFACTORY DOCUMENTARY EVIDENCE FROM THE ORIGINAL SOURCE OF SUPPLY. D.O.T. [REDACTED]

SHIPPED MAR 03 2009

AUTHORIZED INSPECTOR

G Langman



SHIPMENT AUTHORIZATION BY:

BUYER:

PACKED BY:

SHIPPED BY:

RECEIVED BY:

Deborah P

2 JOHN ROSS

RB

RB



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO10735

Purchase Order Date 11/11/09

PO Print Date 11/11/09

Page Number 1 of 1

Order From :

VC-EAG002

EAGLE COPTERS MAINTENANCE LTD.
823 MCTAVISH ROAD
CALGARY, AB T2E 7G9
CA



Contact Name

Vendor Phone 403 250 7370

Vendor Fax 403 250 7110

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 15

Currency

CAD

FOB

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	D212-725-1-007P	Collective Bell Crank	11/20/09 Yes	<u>22</u> 24 00 Each	FedEx Economy	\$535.0000	\$11,235.00

Special Inst: AS PER DWG D212-725-1-007 REV.B
B53635

PO Total:

\$11,235.00

CERTIFICATE OF CONFORMITY
REQ'D UPON DELIVERY

Change Nbr: 1

Change Date: 11/11/09

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable

FIELD AVIATION COMPANY inc

1312 AVIATION PARK N.E. CALGARY ALBERTA T2E 7E2

Purchasing Phone (403) 516-8335 Fax (403) 516-8301

Sales Phone (403) 516-8315 Fax (403) 516-8336

PACKING SLIP



Date	Mar 03/09
Packing Slip	39963
Page #	1

SHIP TO

EAGLE COPTERS MAINTENANCE LTD
823 MC TAVISH ROAD NE
CALGARY AB T2E 7G9

SOLD TO

EAGLE COPTERS MAINTENANCE LTD
823 MC TAVISH ROAD NE
CALGARY AB T2E 7G9

Vendor Code	Order Date	Reference Number	Purchase Order No.	Ship Via Collect	Ship Date	Waybill Number
EAGCOP	Feb 09/09	SO29884	08-003185	*CUST P-UP	Mar 03/09	

Line#	Qty Ord	Qty Ship	Part Number Description	HS Code	Country of Orig.	Unit Value	Total Value
01	1	1	HEAT TREAT HEAT TREAT ALUM ALLOY I HEREBY CERTIFY THAT THE PRODUCTS/PROCESSES LISTED CONFORM TO THE REQUIREMENTS AS SPECIFIED IN THE ABOVE PURCHASE/CONTRACT ORDER. *P/N D212-725-1-007,7075 QQ-A-250/12 T651 HEAT TREATED TO T735 1 PER ASM 2770 REV H* CODE:CC-ECML ATTN:JOHN ROSS B/N:W 21684			130.00	130.00
						TOTAL \$CDN\$	130.00

PACKING SLIP

Comments

I HEREBY CERTIFY THAT THE ITEMS, OR MATERIAL, COVERED BY THIS DOCUMENT HAS BEEN INSPECTED AND TESTED AND CONFORM TO THE APPROVED SPECIFICATION RELATIVE THERETO, THIS IS SUBSTANTIATED EITHER BY MY OWN INSPECTION AND TEST, OR BY SATISFACTORY DOCUMENTARY EVIDENCE FROM THE ORIGINAL SOURCE OF SUPPLY. D.O.T. _____

SHIPPED MAR 03 2009

AUTHORIZED INSPECTOR:

G Langman



SHIPMENT AUTHORIZATION BY:

BUYER:

PACKED BY:

SHIPPED BY:

RECEIVED BY:

1: *Veronica P*

2: JOHN ROSS

RB

RB

FIELD AVIATION COMPANY inc

1312 AVIATION PARK N.E. CALGARY ALBERTA T2E 7E2

Purchasing Phone (403) 516-8335 Fax (403) 516-8301

Sales Phone (403) 516-8315 Fax (403) 516-8336

PACKING SLIP

Date Feb 01/07

Packing Slip 35110

Page # 1

SHIP TOEAGLE COPTERS MAINTENANCE LTD
823 MC TAVISH ROAD NE
CALGARY AB T2E 7G9**SOLD TO**EAGLE COPTERS MAINTENANCE LTD
823 MC TAVISH ROAD NE
CALGARY AB T2E 7G9

Vendor Code	Order Date	Reference Number	Purchase Order No.	Ship Via Collect	Ship Date	Waybill Number	
EAGCOP	May 03/06	SO26526	06-001648	PICKUP	Feb 01/07		
Line#	Qty Ord	Qty Ship	Part Number Description	HS Code	Country of Orig.	Unit Value	Total Value
01	25	25	D212-725-1-007 BELLCRANK I HEREBY CERTIFY THAT THE PRODUCTS/PROCESSES LISTED CONFORM TO THE REQUIREMENTS AS SPECIFIED IN THE ABOVE PURCHASE/CONTRACT ORDER. B/N: W72081		CA	405.00	10,125.00
						TOTAL \$CDN\$	10,125.00

RECEIVED
FEB 18 2007

PACKING SLIP

FEB 15 2007

Comments

I HEREBY CERTIFY THAT THE ITEMS, OR MATERIAL, COVERED BY THIS DOCUMENT HAS BEEN INSPECTED AND TESTED AND CONFORM TO THE APPROVED SPECIFICATION RELATIVE THERETO. THIS IS SUBSTANTIATED EITHER BY MY OWN INSPECTION AND TEST, OR BY SATISFACTORY DOCUMENTARY EVIDENCE FROM THE ORIGINAL SOURCE OF SUPPLY.

FEB 12 2007

SHIPMENT AUTHORIZATION BY:

BUYER:

AUTHORIZED INSPECTOR:

PACKED BY:

SHIPPED BY:

RECEIVED BY:

1.

2. HEATHER WILSON

FIELD AVIATION COMPANY inc

1312 AVIATION PARK N.E. CALGARY ALBERTA T2E 7E2

Purchasing Phone (403) 516-8335 Fax (403) 516-8301

Sales Phone (403) 516-8315 Fax (403) 516-8336

PACKING SLIP

Date	Feb 01/07
Packing Slip	35110
Page #	1

SHIP TO

EAGLE COPTERS MAINTENANCE LTD
823 MC TAVISH ROAD NE
CALGARY AB T2E 7G9

SOLD TO

EAGLE COPTERS MAINTENANCE LTD
823 MC TAVISH ROAD NE
CALGARY AB T2E 7G9

Vendor Code	Order Date	Reference Number	Purchase Order No.	Ship Via Collect	Ship Date	Waybill Number	
EAGCOP	May 03/06	SO26526	06-001648	PICKUP	Feb 01/07		
Line#	Qty Ord	Qty Ship	Part Number Description	HS Code	Country of Orig.	Unit Value	Total Value
01	25	25	D212-725-1-007 BELLCRANK I HEREBY CERTIFY THAT THE PRODUCTS/PROCESSES LISTED CONFORM TO THE REQUIREMENTS AS SPECIFIED IN THE ABOVE PURCHASE/CONTRACT ORDER. B/N: W72081		CA	405.00	10,125.00
						TOTAL \$CDN\$	10,125.00

PACKING SLIP

FEB 15 2007

Comments

I HEREBY CERTIFY THAT THE ITEMS, OR MATERIAL, COVERED BY THIS DOCUMENT HAS BEEN INSPECTED AND TESTED AND CONFORM TO THE APPROVED SPECIFICATION RELATIVE THERETO, THIS IS SUBSTANTIATED EITHER BY MY OWN INSPECTION AND TEST, OR BY SATISFACTORY DOCUMENTARY EVIDENCE FROM THE ORIGINAL SOURCE OF SUPPLY.

FEB/12/2007

SHIPMENT AUTHORIZATION BY:

BUYER:

AUTHORIZED INSPECTOR:

PACKED BY:

SHIPPED BY:

RECEIVED BY:

1. *[Signature]*
FACI 604 (Jul 31, 2006)

2. HEATHER WILSON

*RB**RB*

L Lacelle

From: Craig Swayne [cswayne@eaglecopters.com]
Sent: November 16, 2009 1:49 PM
To: 'L Lacelle'
Subject: RE:

Yes Linda I believe this to be the case. I don't think that Field Aviation would have NDT the pieces when they manufactured them if so we would have no record.

Can you double check that they do not have a chamfer I don't think im making that up.

Craig

From: L Lacelle [mailto:llacelle@dartaero.com]
Sent: November 16, 2009 11:46 AM
To: 'Craig Swayne'; 'Jean-Luc Menard'
Subject: RE:

Hi Craig,
So just to be sure, we have to chamfer and NDT the 22 pcs here, correct?
LL

From: Craig Swayne [mailto:cswayne@eaglecopters.com]
Sent: November 16, 2009 1:02 PM
To: 'Jean-Luc Menard'; 'L Lacelle'
Subject: RE:

Linda

We have machined the chamfer here at Eagle you wont be seeing these shipped to you.

While I think about it. The 21 bellcranks we shipped to you from our stock did not have this chamfer machined into them!!

Thanks
Craig

From: Jean-Luc Menard [mailto:jmenard@dartaero.com]
Sent: November 10, 2009 5:40 AM
To: 'L Lacelle'
Cc: 'Craig Swayne'
Subject: RE:

Linda,
No problem, we will re-mount them on the fixture and I will create a temp prog to mill the chamfers.
JLM

11/16/09

From: L Lacelle [mailto:llacelle@dartaero.com]
Sent: November 10, 2009 7:05 AM
To: 'Jean-Luc Menard'
Cc: 'Craig Swayne'
Subject: FW:

JL,
If he returns these, can we add the chamfer, then get NDT'd?

LL

From: Craig Swayne [mailto:cswayne@eaglecopters.com]
Sent: November 9, 2009 5:21 PM
To: 'L Lacelle'
Subject:

Hello Linda

Are you up to speed on three D212-725-1-007 Collective bellcranks shipped to me eons ago for warranty of three Eagle Singles?

I guess Dart had identified that the bell cranks had to be NDT after manufacture and three Eagle singles had them installed with out NDT.

I have these three bellcranks from batch # B48087 and the bearing locations are missing a chamfer on the on one side of each bellcrank. This chamfer allows room for the material to be displaced when swaging bearing into place. This leaves me unable to properly roll stake the bearings.

See pictures attached.

Thanks
Craig

L Lacelle

From: David Shepherd [dshepherd@dartaero.com]
Sent: December 29, 2009 11:16 AM
To: 'L Lacelle'
Cc: 'Mark Miele'
Subject: RE: rfq
Attachments: StakingProcedure.pdf

Linda,

Per our conversation ...

The 0.909 holes are acceptable as is.
Please deburr the parts to remove the dimple.
Do the chamfer.
Touch up with alodine.
NDT.
Ensure all items on the work order have been addressed.
Ship at least one part (I think you said you would ship 2) to Eagle for Eagle Single #8.

For the rest of the parts, we should be looking at staking in the bearings and priming at Dart.
I have attached the staking procedure that Harvey prepared based on data in the MM.
Please forward to the appropriate personel at Dart.

David

From: L Lacelle [mailto:llacelle@dartaero.com]
Sent: Tuesday, December 29, 2009 5:02 AM
To: dshepherd@dartaero.com; 'Mark Miele'
Subject: RE: rfq
Importance: High

I can get this done this week, however, the parts were found to have a measurement of .909, where dim s/b .906
+.000/-.002 and all parts have a dimple in the center. Please let me know if it is still ok to proceed.

Thx
Linda

From: dshepherd@dartaero.com [mailto:dshepherd@dartaero.com]
Sent: December 23, 2009 11:39 PM
To: Mark Miele
Cc: 'L Lacelle'
Subject: Re: rfq

Mark,

Sorry for the terrible response on this issue. I keep forgetting to deal with it. Hopefully, we can get one to you the first week in January.

Linda,

12/29/09

For sure ... We can chamfer and NDT the 22 bellcranks received from Eagle.

David

Sent from my BlackBerry device on the Rogers Wireless Network

From: "Mark Miele" <mmiele@eaglecopters.com>
Date: Wed, 23 Dec 2009 07:51:19 -0700
To: <dshepherd@dartaero.com>
Cc: 'L Lacelle' <llacelle@dartaero.com>
Subject: RE: rfq

Hi David,

Ian needs to know what is going on with this part for the single, have you sorted out with Dart the Chamfer issue.

Please advise

Regards,

Mark Miele, Purchasing
Eagle Copters Maintenance Ltd.
823 McTavish Road NE, Calgary, Ab, Canada T2E 7G9
Toll: Free 1-800-564-6469
Phone 1-403 250-7370
Fax: 1-403-250-7110

From: Mark Miele [mailto:mmiele@eaglecopters.com]
Sent: Tuesday, December 15, 2009 4:27 PM
To: 'dshepherd@dartaero.com'
Subject: FW: rfq

Hi Dave,

Did you get a chance to look into this yet?

Regards,

Mark Miele, Purchasing
Eagle Copters Maintenance Ltd.
823 McTavish Road NE, Calgary, Ab, Canada T2E 7G9
Toll: Free 1-800-564-6469
Phone 1-403 250-7370
Fax: 1-403-250-7110

From: L Lacelle [mailto:llacelle@dartaero.com]
Sent: Friday, December 11, 2009 9:34 AM
To: 'Mark Miele'
Cc: 'David Shepherd'; 'Jean-Luc Menard'
Subject: RE: rfq

We are still waiting to here back from David, to see if we can chamfer and NDT the 22 received from Eagle !
LL

From: Mark Miele [mailto:mmiele@eaglecopters.com]
Sent: December 11, 2009 11:24 AM
To: 'L Lacelle'
Subject: rfq

Hi Linda,

Please provide P&A for qty 1 p/n D212-725-1-007 Bellcrank - RUSH
(I think this is the one with bearings)

Regards,

Mark Miele, Purchasing
Eagle Copters Maintenance Ltd.
823 McTavish Road NE, Calgary, Ab, Canada T2E 7G9
Toll: Free 1-800-564-6469
Phone 1-403 250-7370
Fax: 1-403-250-7110

No virus found in this incoming message.
Checked by AVG - www.avg.com
Version: 8.5.431 / Virus Database: 270.14.122/2590 - Release Date: 12/28/09 07:16:00



LIQUID PENETRANT TEST REPORT

P- 15314

PAGE 1 OF 1

CLIENT DART Aerospace DATE DEC 29-2009 TIME AM ☒ PM ☐
ATTENTION LINDA / CRANTEL ACUREN JOB NO. 199-09-001685
ADDRESS 1270 ABERDEEN ST PO/WO NO. ---
HAWKESBURY ON. WORK LOCATION SAME
KOH 1K7 ACCEPTANCE STD. ASTM 1417 REV./DATE 2007
PROJECT F.P.I. ON CROSS TUBES AND MACHINED PARTS
ITEM(S) EXAMINED 4 CROSS TUBES
11 MACHINED - STUDS. 2-COLLECTIVE BELL CRANK-W.O. 53635

JOB DESCRIPTION PROCEDURE NO. LT0002 REV./DATE TECHNIQUE NO. LT0002 REV./DATE
PART NO. --- 9/STEEL MATERIAL ALUMINUM THICKNESS VARIOUS
SCOPE WET FLUORESCENT LIQUID PENETRANT
INSPECTION CARRIED OUT 100% EXTERNAL

TEST DETAILS
METHOD ☒ FLUORESCENT ☐ VISIBLE ☒ WATER WASH 16459 ☐ SOLVENT REMOVABLE ☐ POST EMULSIFIED
FAMILY BRAND MAGNAFLUX BLACK LIGHT S/N 6 ☐ OUTPUT > 1000 μ W/CM² ☐ AMBIENT < 2 fc
PENETRANT 2407 MINIMUM DWELL TIME 45 MIN. LIGHTING EQUIP. ☐ FLASHLIGHT ☐ TROUBLELIGHT ☐ OUTPUT > 100 fc @ SURFACE
PENETRANT REMOVER H-20 MINIMUM DRY TIME >10 MIN. OTHER LAB. NO
DEVELOPER SKD 52 MINIMUM DWELL TIME 10 MIN. LIGHT METER S/N 1098866 CAL DUE DATE 10-1-23
DEVELOPER TYPE ☒ NON AQUEOUS ☐ AQUEOUS ☐ DRY

TEST SURFACE
SURFACE CONDITION ☐ AS GROUND ☐ AS WELDED ☒ MACHINED ☐ SHOT BLASTED ☐ CLEAN BARE METAL
SURFACE TEMPERATURE ☐ < -4°C/ 20°F ☐ -4°C/ 20°F TO 10°C/ 50°F ☒ 10°C/ 50°F TO 52°C/ 125°F ☐ > 52°C/ 125°F

RESULTS- ☐ METRIC ☒ IMPERIAL

1	CROSSTUBE-W.O. 53341	✓
1	CROSSTUBE-W.O. 53342	✓
1	CROSSTUBE-W.O. 54504	✓
1	CROSSTUBE-W.O. 54503	✓
11	STUDS-W.O. 50932	✓
2	COLLECTIVE BELL CRANK W.O. 53635	✓

S
10/6/05

Scope of Services

The agreement of Acuren Group Inc. to perform services extends only to those services provided for in writing. Under no circumstances shall such services extend beyond the performance of the requested services. It is expressly understood that all descriptions, comments and expressions of opinion reflect the opinions or observations of Acuren Group Inc. based on information and assumptions supplied by the owner/operator and are not intended nor can they be construed as representations or warranties. Acuren Group Inc. is not assuming any responsibilities of the owner/operator and the owner/operator retains complete responsibility for the engineering, manufacture, repair and use decisions as a result of the data or other information provided by Acuren Group Inc. In no event shall Acuren Group Inc.'s liability in respect of the services referred to herein exceed the amount paid for such services.

Standard of Care

In performing the services provided, Acuren Group Inc. uses the degree, care and skill ordinarily exercised under similar circumstances by others performing such services in the same or similar locality. No other warranty, expressed or implied, is made or intended by Acuren Group Inc.

SIGNATURES

CLIENT REPRESENTATIVE <u>Linda Crantel</u>	PRINT	SIGNATURE	DTR # <u>E-27691</u>
TECHNICIAN (SIGNATURE) <u>M. K. Johnson</u>	1 st TECHNICIAN	2 nd TECHNICIAN	REPORT REVIEWED BY:
NAME (PRINT):	CGSB LEVEL <u>2</u> SNT LEVEL <u>4</u>	CGSB LEVEL <u>---</u> SNT LEVEL <u>---</u>	NAME INITIALS
	CGSB REG. No <u>6066</u>	CGSB REG. No <u>---</u>	

